Common larch-willow rust -*Melampsora capraearum*

A number of rust fungi infect larch and willow trees. If the teliospores are present on upper surface of willow leaves, *Melampsora caprearum* can be easily differentiated by the thickened apex of the teliospores. Also on willow, the uredinial stage is more difficult to distinguish from other species of *Melampsora*. The inconspicuous spermagonial and aecial stages occur on larch in spring. Recent molecular studies have confirmed that these are distinct species that can be identified using molecular diagnostic tools (Nakamura et al. 1998, Pei et al. 2005). Pei & McCracken (2005) present a recent account of these rust fungi. *Melampsora caprearum* is the most common species of this genus on larch in Europe.

Melampsora capraearum Thum. 1879

Spermogonia amphigenous, type 3 (Hiratsuka, 1992).

Aecia hypophyllous, pale orange; aeciospores globose or broadly ellipsoid, 15-25 × 12-20 µm, finely and densely verrucose, walls 1.5-2 µm, thick, germ pores scattered.

Uredinia hypophyllous, occasionally epiphyllous, 1-3 mm; urediniospores globose or broadly ellipsoid, 14-26 × 13-23 µm, walls 2-4 µm thick, distantly echinulate, germ pores scattered; paraphyses capitate, 50-60 x 18-30 µm, walls thickened at apex, up to 6 µm.

Telia epiphyllous, subcuticular, 1 mm or more wide, dark reddish-brown; teliospores 25-45 × 7-17 µm, walls 1 µm thick at side, 5-10 µm thick above, with an apical germ pore.

See Hiratsuka (1992) and for a more detailed description.

Host range: Spermagonial and aecial stages on various species of *Larix*, mostly commonly on *Larix decidua* and *L. leptolepis* with one report on *L. occidentalis* and *L. sibirica*. The uredinial and telial stage on many species of *Salix*, mostly commonly on *S. caprea*.

Geographic distribution: Widespread in Europe, the Middle East and Asia. The few reports from North America are from one state, Vermont, over a century ago (Orton, 1898), although more recent specimens in BPI exist from Missouri confirmed by G. Cummins.

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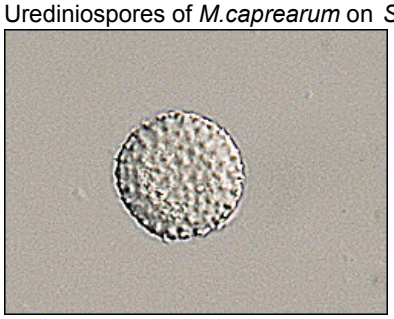
Urediniospores of *M.caprearum* on *Salix bakko* (x40)



Uredinia of *M. caprearum* on *Salix bakko* (×4)

Urediniospores and paraphyses of *M.caprearum* (x40)